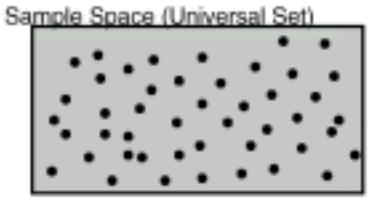
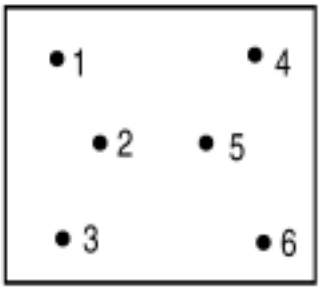
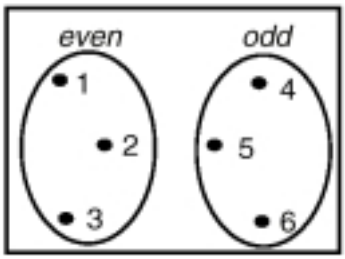


FIGURE 2.1 Venn diagram representation of a sample space.





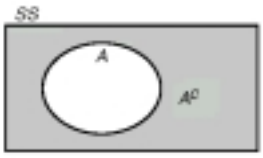
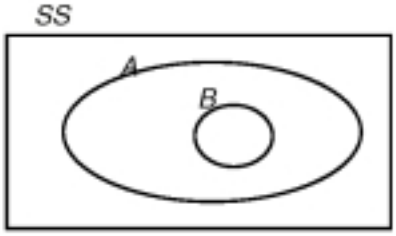


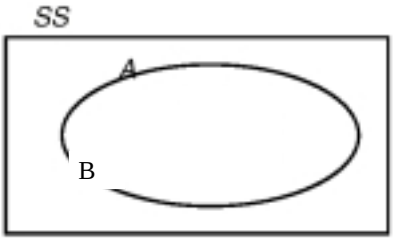
FIGURE 2.2 Representation of the complement of an event. The shaded region in the diagram represents the complement of event A (unshaded region), A^c.

A INCLUDE B
B⊂A

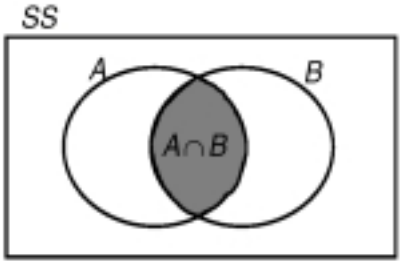


Representation of the relation of A include B.

A e B COINCIDONO
B=A

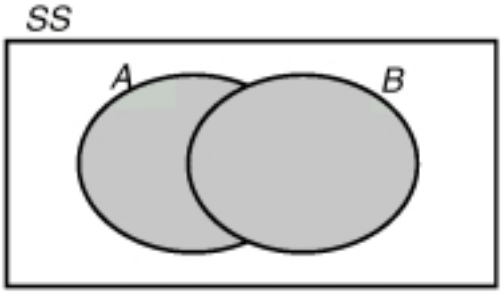


A∩B



A Venn diagram representation of the intersection

A∪B



A Venn diagram representation of the union

1. $A \cup B = B \cup A$ Commutative Rule
2. $(A \cup B) \cup C = A \cup (B \cup C)$ Associative Rule
3. $A \cap (B \cup C) = (A \cap B) \cup (A \cap C)$ Distributive Rule
4. $(A^c)^c = A$ Complement of a Complement Rule
5. $(A \cap B)^c = A^c \cup B^c$ DeMorgan's Rule
6. $A \cap A^c = \varnothing$ where $\varnothing$ denotes the null set
7. $A \cap S = A$